

IN THE CLAIMS:

Claim 1 (Currently amended) A method comprising the steps of:

heat treating aluminum alloy rivets to increase their shear strength;

sand blasting the heat treated rivets with aluminum oxide;

washing the heat treated rivets with a solution containing chromic acid and a fluorine compound;

applying a coating of a solution of a solvent, a resin binder, strontium chromate and an elasticizer to the heat treated rivets;

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours, and maintaining the temperature of the coating and the heat treated rivets below a maximum temperature of about 300°F, to produce a gasket-like coating on the heat treated rivets having a thickness of about 0.0007 to about 0.001 inch; and

riveting two workpieces together with the coating sealing the heat treated rivets, and with the heat treated rivets retaining their full heat-treated shear strength.

Claim 2 (Previously presented) A method as defined in claim 1 wherein the heat treated rivets are cured at a temperature of between 240°F and 260°F.

Claim 3 (Previously presented) A method as defined in claim 1 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, and the resin is a phenolic resin.

Claim 4 (Currently amended) A method comprising the steps of:

obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;

sand blasting the heat treated rivets;

washing the heat treated rivets with a solution containing oxidation inhibiting material;

applying a coating of a solution of a solvent, a resin binder, strontium chromate and an elasticizer to the heat treated rivets; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours, and maintaining the temperature of the coating and the heat treated rivets below a maximum temperature of about 300°F, to produce a gasket-like coating on the heat treated rivets having a thickness of about 0.0007 to about 0.002 inch;

whereby the heat treated rivets retain their full heat treated shear strength, and seal rivet holes when the heat treated rivets are riveted in place.

Claim 5 (Previously presented) A method as defined in claim 4 wherein the heat treated rivets are cured at a temperature of between 240°F and 260°F.

Claim 6 (Previously presented) A method as defined in claim 4 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, and the resin is a phenolic resin.

Claim 7 (Cancelled)

Claim 8 (Currently amended) A method comprising the steps of:

heat treating aluminum alloy rivets to increase their shear strength;

applying a coating of a solution of a solvent, a resin binder, a chromate compound and an elasticizer to the heat treated rivets;

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours, and maintaining the temperature of the coating and the heat treated rivets below a maximum temperature of about 300°F, to produce a gasket-like coating on the heat treated rivets having a thickness of about 0.0007 to about 0.001 inch; and

riveting two work pieces together with the coating sealing the rivet, and with the heat treated rivets retaining their full heat-treated shear strength.

Claim 9 (Previously presented) A method as defined in claim 8 wherein the heat treated rivets are cured at a temperature of between 240°F and 260°F.

Claim 10 (Previously presented) A method as defined in claim 8 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, and the resin is a phenolic resin.

Claim 11 (Currently amended) A method comprising the steps of:  
obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;

applying a coating of a solution of a solvent, a resin binder, a corrosion inhibitor, and an elasticizer to the heat treated rivets; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours, and maintaining the temperature of the coating and the heat treated rivets below a maximum temperature of

about 300°F, to produce a gasket-like coating on the heat treated rivets having a thickness of about 0.0007 to about 0.002 inch;

whereby the heat treated rivets retain their full heat treated shear strength, and seal rivet holes when the heat treated rivets are riveted in place.

Claim 12 (Previously presented) A method as defined in claim 11 wherein the heat treated rivets are cured at a temperature of between 240°F and 260°F.

Claim 13 (Original) A method as defined in claim 11 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, the resin is a phenolic resin, and the corrosion inhibitor is strontium chromate.

Claim 14 (Cancelled)

Claim 15 (Currently amended) A method comprising the steps of:  
obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;

pre-treating the heat treated rivets to provide a clean surface free from oxidation or contamination;

applying a coating of a solution of a solvent, a resin binder, a corrosion inhibitor, and an elasticizer to the heat treated rivets; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours, and maintaining the temperature of the coating and the heat treated rivets below a maximum temperature of about 300°F, to produce a gasket-like coating on the heat treated rivets having a thickness of about 0.0007 to about 0.002 inch;

whereby the heat treated rivets retain their full heat treated shear strength, and seal the rivet holes when the heat treated rivets are riveted in place.

Claim 16 (Previously presented) A method as defined in claim 15 wherein the heat treated rivets are cured at a temperature of between 240°F and 260°F.

Claim 17 (Cancelled)

Claim 18 (Previously presented) A method as defined in claim 15 wherein the pre-treating involves sand blasting the rivets and washing the heat treated rivets in an acid solution.

Claim 19 (Previously presented) A method as defined in claim 15 wherein said pre-treatment involves chromic acid anodizing of the heat treated rivets.